

Attorney's Docket No. 035718/241421 (5718-119)

PATENT

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: **Sewalt et al.** Confirmation No.: 8554  
 Appl No.: 10/005,429 Group Art Unit: 1638  
 Filed: December 3, 2001 Examiner: Stuart F. Baum  
 For: COMPOSITIONS AND METHODS FOR ALTERING THE DISULFIDE STATUS  
 OF PROTEINS

Commissioner for Patents  
 P.O. Box 1450  
 Alexandria, VA 22313-1450

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## RESPONSE TO RESTRICTION REQUIREMENT

This is in response to the Office Action mailed February 23, 2004, in which the Examiner has required restriction between Group I, namely Claims 1-2, Group II, namely Claims 3-12, 14-22, 24-26, 28-29, 31-35, 37-38, 40-45, 47-52, 54-56 and 58-61, and Group III, namely Claims 13, 27, 39 and 57, and Group IV, namely Claims 23, 30, 36, 46 and 53.

The Examiner has further required sequence elections for each of the four groups as set forth in the Office Action. If Group I is elected, Applicants must also elect a one polypeptide sequence from claims 1 or 2. If Group II is elected, Applicants must also elect, from the list of sequences in claims 3 or 4, one DNA sequence and one corresponding amino acid sequence that is encoded by the elected DNA sequence. If Group III is elected, Applicants must also elect, from the list of sequences in claims 3 or 4, one DNA sequence and one corresponding amino acid sequence that is encoded by the elected DNA sequence. If Group IV is elected, Applicants must also elect, from the list of sequences in claims 3 or 4, two DNA sequences and two corresponding amino acid sequences that are encoded by the elected DNA sequences.

Applicants hereby provisionally elect without traverse to prosecute the claims of Group IV (Claims 23, 30, 36, 46, and 53) and further elect (1) SEQ ID NO: 13 and nucleotide sequences encoding the amino acid sequence set forth in SEQ ID NO: 14 and (2) SEQ ID NO: 24 and nucleotide sequences encoding the amino acid sequence set forth in SEQ ID NO: 25. Applicants expressly reserve the right to file divisional applications or take such other appropriate measures deemed necessary to protect the inventions in the remaining claims.

Applicants note for the record that, in the Office Action, the characterization of the subject matter of the Group IV claims is not accurate. The Office Action indicates that the Group IV claims (claims 23, 30, 36, 46, and 53) are drawn to a method of altering the disulfide status of storage proteins comprising transforming a plant with two sequences. While Applicants do not disagree

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that each of the Group IV claims involves two sequences, namely a nucleotide sequence encoding an NADPH-thioredoxin reductase and a nucleotide sequence encoding a thioredoxin *h*, only claims 23 and 53 are directed to a method for altering the disulfide status of storage proteins in a plant. In contrast, claim 30 is directed to a method for improving the digestibility of grain, claim 36 is directed to a method for altering grain hardness, and claim 46 is directed to a method for improving grain for processing.

Applicants submit concurrently herewith a Preliminary Amendment to amend the claims to omit non-elected subject matter.

Should the Examiner have further questions or comments with respect to examination of this case, it is respectfully requested that the Examiner telephone the undersigned so that further examination of this application can be expedited.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those, which may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,

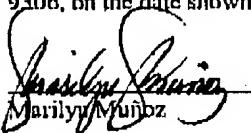


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**CERTIFICATION OF FACSIMILE TRANSMISSION**

I hereby certify that this paper is being facsimile transmitted to Examiner Stuart F. Baum, at the US Patent and Trademark Office at facsimile number (703) 872-9306, on the date shown below.



April 19, 2004  
 Date